

WHAT IS CLAIMED IS:

1. A dual interface digital data card, comprising:

a dual interface controller, for providing an external data transmission interface channel under different operating modes with a USB signal and an interface signal;

a memory module, having at least one a memory module and acting as a device for storing digital data;

a dual interface circuit layout, adopting a printed circuit technology to signals of two different interfaces on one side of a circuit board and expose said interfaces for a signal connection, wherein said two interfaces including a USB interface and another interface;

a data processing unit, integrated with said dual interface controller by an appropriate semiconductor circuit design for providing a digital data processing and computation capability; and

a carrier, for containing said dual interface controller, memory module, dual interface circuit layout, and data processing unit; wherein said dual interface controller and memory module having a corresponding circuit connected with said data processing unit, and said dual interface controller being capable of being operated in one mode at a time.

2. The dual interface digital data card of claim 1, wherein said other interface signal adopts a 4-bit data line as the interface, so that said interface transmits data in a data mode selected from the collection of 1 bit and 4 bits.

3. A portable digital graphic processing device, comprising:

an interface controller, providing an interface signal and acting as an interface channel for a device to transmit data;

a first memory module, having at least one non-volatile memory and acting as a component for storing digital data;

a second memory module, having at least one non-volatile memory and acting as a component for storing digital data;

a data processing unit,

integrated with said dual interface controller by an appropriate semiconductor circuit design for providing a digital graphic data processing and computation capability; and

5 a carrier, for containing said dual interface controller, memory module, dual interface circuit layout, and data processing unit;

wherein said interface controller and a first memory module having a corresponding circuit connected with said data processing unit for selectively writing and reading data into and from said first memory module, and said data
10 processing unit and said second memory module having a corresponding circuit connected with said processing unit for selectively writing and reading data into and from said second memory module to complete the data processing, and after said interface controller transmitting data to said data processing unit for related processing, said interface controller transmitting data to an external system to
15 expedite and enhance the graphic data processing capability of a system.

4. The portable digital graphic processing device of claim 3, wherein said second memory module adopts a semiconductor technology to further integrate said data processing unit into a data processing unit having a memory unit.

5 The portable digital graphic processing device of claim 3, wherein said first
20 memory module adopts a semiconductor technology to further integrate said second memory module into a single memory module.

6. The portable digital graphic processing device of claim 3, wherein said interface is a data transmission interface having at least one USB interface signal.

7. The portable digital graphic processing device of claim 3 further comprising
25 said dual interface digital data card as cited in claims 1 or 2 as a carrier for said device.

8. A composite memory device, characterized in that using a MCP packaging technology to combine a NADN type or a NOR type flash memory with a graphic

memory to constitute a single component.

9. A memory card, adopting said composite memory device as recited in claim 8 as a memory device for storing and writing data.

5 10. A memory card controller, being built in said memory card as recited in claim 9 and designed for controlling the data to be selectively read from and written into said composite memory device and providing an interface to connect said memory card with said external system for signal transmission.